

Presented To:	City Council
Presented:	Tuesday, Feb 23, 2021
Report Date	Tuesday, Feb 09, 2021
Type:	Managers' Reports

Request for Decision

Fire Protection Service Level Adjustment

Resolution

THAT the City of Greater Sudbury directs staff to implement Option _____, as outlined in the report entitled “Fire Protection Service Level Adjustment”, from the General Manager of Community Safety, presented at the City Council meeting on February 23, 2021;

AND THAT the City of Greater Sudbury directs staff to provide a report detailing options regarding fire area rating and associated impacts for the selected service level as part of the 2021 Property Tax Policy.

Relationship to the Strategic Plan / Health Impact Assessment

This is an operational matter with no direct relationship to the Strategic Plan.

Report Summary

As requested at the January 20, 2021 Special City Council meeting, this report provides City Council with background information to assist in determining the fire protection service level and area rating adjustments that must be made as a result of the Val Therese Staffing award.

Financial Implications

If Option one is approved there are no financial implications.

If Option two is approved an increase of approximately \$531,426 is required in the 2021 Budget to ensure adequate volunteer staffing response.

If Option three is approved it is anticipated that the remaining three halls would need to be relocated. The cost and time to do so would be substantive.

If none of the options in this report are carried, staff will continue the current practice of ensuring four full-time fire fighters on each shift at Station 16. Continuing this practice using overtime is costly and

Signed By

Report Prepared By

Joseph Nicholls
General Manager of Community Safety
Digitally Signed Feb 9, 21

Financial Implications

Steve Facey
Manager of Financial Planning &
Budgeting
Digitally Signed Feb 9, 21

Recommended by the Department

Joseph Nicholls
General Manager of Community Safety
Digitally Signed Feb 9, 21

Recommended by the C.A.O.

Ed Archer
Chief Administrative Officer
Digitally Signed Feb 9, 21

unsustainable.

Regardless of which option is approved, there will be area rating implications that are provided in this report. These implications will be presented as part of 2021 Property Tax Policy.

EXECUTIVE SUMMARY

This report provides City Council with additional information and options for consideration based on the recent arbitration award, where the Board ruled in favour of the Sudbury Professional Fire Fighter Association's (SPFFA) proposal to increase staffing at Station 16 in Val Therese from two full-time firefighters per shift to four. Due to the significant fire services operating budget implications of this award, which is estimated at \$1.4 million per year for the hiring of ten additional full-time firefighters, City Council has requested more detailed information on this matter, including service level, area rating, community safety, and risk implications.

The options described in this report do not reduce volunteer firefighter complement levels, nor do they prompt the closure of a volunteer fire station in Valley East or in any other area of the City. The options presented for consideration offer City Council the opportunity to evaluate the desired service level for Valley East, with related staffing, outside of the recommendations in the arbitration award. The arbitration award is specific to the Val Therese Station, and does not result in the introduction of full-time staffing in areas of the City currently operated by volunteer firefighters.

Each option presented in this report has implications for the overall Fire Services' response capability, which can have effects on community risk (the probability and consequence of a fire or other emergency, and its impact on residents, property, economy, and environment). Each option changes the current risk level and, generally, increases overall risk. However, among the options, reassigning existing full-time staff from the Main Station aerial truck presents the least amount of risk. These options also impact area-rating as outlined in the corporation's Property Tax Policy, and taxes payable by property owners.

In order to comply with the binding terms of the arbitration award, and as previously described to Council, Fire Services has been staffing the Val Therese Station with four full-time firefighters per shift using overtime. If none of the options in this report are carried, staff will continue the current practice of ensuring four full-time fire fighters on each shift at Station 16. Continuing this practice using overtime is costly and unsustainable. Staff would anticipate additional direction from Council to fund a more permanent staffing arrangement in this regard in the Fire Services budget beginning in 2021.

The following three options are outlined in the report:

1. Reassign existing full-time staff from Main Station aerial (ladder) truck.
2. Convert Station 16 to volunteer.
3. Close an existing full-time station and reassign the firefighters to Station 16 and other career stations.

BACKGROUND

On August 31, 2020, an interest arbitration between the City of Greater Sudbury and the Sudbury Professional Firefighter's Association, Local 527 (SPFFA) concluded. The arbitration board ruled in favour of the SPFFA's proposal to increase staffing at Station 16 from two full-time firefighters to four full-time firefighters per shift.

At the December 21, 2020, Finance and Administration Committee, Council requested other service level and staffing options at Val Therese in response to the arbitrated staffing award.

At the January 20, 2021, Special City Council meeting, resolution CC2021-20 was carried, requesting a report with all of the necessary background information to assist Council in determining the fire protection service level and subsequent taxation area rating adjustments as a result of the Val Therese staffing award.

This report outlines three options for Council's consideration, outside of the arbitration ruling. Each option involves changes in the fire protection level of service for residents, creates a shift in taxation, and may result in increased risk in some parts of the community.

Greater Sudbury Fire Response Model

The fire response model in Greater Sudbury is complex and has many interdependencies. Each fire truck responds either alone or with trucks from other stations, based on established computer-aided dispatch recommendations. This is critical in ensuring proper minimum staff and equipment resources are on site to address each emergency response based on call type.

The staff resources required for the City of Greater Sudbury Fire Services to successfully perform interior suppression and rescue efforts on a residential home under 2,000 square feet is a minimum of 16 firefighters to make safe entry. Larger homes, commercial structures, or high-risk occupancies require additional firefighters to make entry and perform safe fire ground operations. This aligns with fire services best practices, Occupational Health and Safety requirements, the Ministry of Labour Section 21 guidelines and the Office of the Ontario Fire Marshall.

For a fire call, the emergency is dispatched to the closest fire stations. Initially, three units will respond with a request for a fourth unit to respond as rapidly as possible if a fire has been confirmed. Each truck has a minimum of four firefighters. As each truck arrives, firefighters will be assigned a critical fire ground task, as outlined by fire services best practices, and as required by legislation.

While the critical tasks of the four firefighters on the first responding unit establishes initial operations, they are awaiting the arrival of additional resources before performing other tasks. Critical functions that require up to 16 firefighters for a residential house fire include:

- **Initial Unit** - Incident Command (1), Pump Operations (1), Interior Attack Crew (2)
- **Second Unit** - Accountability Officer (1), Rapid Intervention Team (2), Tools and Pump Operators (1)
- **Third Unit** - Additional Hose Line (2), Ladders and Ventilation (2)
- **Fourth Unit** - Safety Hose Line (2), Second Rapid Intervention Team (2)

It is important to note that fires in multi-unit residences, apartments or commercial occupancies require significantly more firefighters to respond, exceeding the 22 full-time complement we have per shift.

Since 2015, in order to ensure a guaranteed minimum response to critical emergencies, Fire Services has been deploying full-time fire trucks, staffed with four firefighters, into volunteer response areas. This ensures, at a minimum, one fully-staffed fire truck responds to support minimum incident staffing requirements at critical emergencies. Critical emergencies are those which involve trains, aircraft, explosions, industrial complexes, hazardous materials, commercial vehicles, water/ice/high-angle rescues, and confirmed structure fires.

Community Risk Analysis

Assessing fire risks within a community is the process of examining and analyzing the relevant factors that characterize the community and applying this information to identify potential fire scenarios that may be encountered. The historical data from Valley East and Fire District 1 indicate there are approximately 50 to 300 fires respectively per year, ranging from small fires to large structure fires. This information serves as the basis for formulating and prioritizing risk management decisions to mitigate the impact of these events.

Community risk for the three options presented in this report fall into two distinct response areas. The first response area is District 1 and encompasses Station 1 (Van Horne), Station 2 (Minnow Lake), Station 3 (New Sudbury) and Station 4 (Long Lake). The second response area District 4 and encompasses Station 15 (Val Caron), Station 16 (Val Therese), Station 17 (Hanmer), and Station 18 (Capreol) (see maps in Appendix A).

To understand community risk and the Fire Services' ability to mitigate the impact of emergency events, staffing, station location, and available resources are all critical factors. For example, staffing an initial responding fire truck with less than four firefighters or taking a truck out of service may affect the outcome of an emergency because on-scene activities anticipate certain minimum staffing levels before they can be carried out. The elapsed time required to assemble minimum staffing levels could influence the response plan and, therefore, the outcome of an emergency.

High Risk properties include large high-rises or multi-unit residential buildings, rooming and boarding houses, group homes, retirement and treatment facilities, hospitals, correctional institutions, schools, and several classifications of industrial or mining sites.

For more detailed information and analysis on community risk, see Appendix B.

Options

This report provides an analysis of three options. Additional background information on the volunteer analysis can be found in Appendix C and a chart summarizing public risk and operational challenges for each option can be found in Appendix D. The area rating impacts listed below are based on 2020 fire area rates currently in place. The 2021 Property Tax Policy will highlight the shift in taxation and area rating impacts to taxpayers, based on the direction provided by Council.

The area rating amounts outlined below are estimates and include the potential tax change per household for each option, based on a home assessed at \$230,000.

Option 1: Reassign Existing Full-time Firefighters from Aerial

Summary:

Shift two career firefighters from the aerial truck stationed out of Van Horne and reassign them to Val Therese, reducing the aerial staffing to two. This would result in four full-time firefighters stationed at Val Therese, in line with the arbitration award.

Risks:

- The Main Station aerial (ladder) truck would only be staffed with two full-time firefighters, delaying arrival of sufficient fireground staffing to carry out essential operational tasks.
- A reduction in aerial staff would result in the Val Therese career firefighters responding to all critical fire emergencies in Fire District 1 (city core) in order to meet minimum fire ground staffing levels and to maintain aerial and tanker operations, leaving Valley East without a career response for extended periods

Costs:

- None

Area Rating:

- This area would move from a composite rate to a career rate. The fire area rates would be modified as follows:
 - Volunteer - \$159.89 (no change)
 - Composite to Career – Increase from \$261.38 to \$356.46 (\$95.08 per year)
 - Career – Decrease from \$375.59 to \$356.46 (\$19.13 per year)

Option 2: Convert Val Therese Station to Volunteer**Summary:**

Move career firefighters from Val Therese into a full-time station, making Val Therese a volunteer station. The career firefighters need to be moved into a full-time station due to the CBA requirement to maintain a minimum staffing of 22 firefighters per platoon. The location of the firefighters has no impact on minimum fire staffing. For example, the Collective Agreement states as follows, 8:02 Staffing: the parties agree that the Employer shall maintain a minimum of twenty-two (22) full-time firefighters on each of the four platoons at all times. On duty suppression personnel shall only be assigned to in-service emergency vehicles or be in training (within the confines of the geographical response area and available to respond) at all times.

Risks:

- Time for fire service response from Station 16 to an emergency will increase, on average, by approximately five minutes.
- Process changes will need to be made that implement additional deployment through the paging of all volunteers in the Val Caron/Val Therese/Hanmer areas to ensure adequate staff response to emergencies, as this conversion would significantly increase volunteer call volumes in Valley East.
- Call volumes for Valley East volunteer stations may not be sustainable due to the increase in volunteer responses.
- Recruitment and retention challenges for volunteer firefighters would be potentially exacerbated by an increase in volunteer responses, increasing the risk of short staff situations.

- Population levels and property types in Valley East reflect characteristics typically associated with full-time fire protection services within the City; a volunteer response model may not be sustainable.

Costs

- \$531,426 - Volunteer costs due to an increase in call volume by 453% including 64 medical tiered calls with an average staffing cost of a station call-out (\$542.33).
- In year one, included in the \$531,426, is medical tiered response costs of \$82,459 which includes volunteer response costs of \$34,709 and initial training costs (32 staff) of \$47,750.
- Medical tiered response in subsequent years would cost approximately \$47,125 which includes volunteer response, on-going training, and new staff training costs.

Area Rating

- Moving the two full-time firefighters from Val Therese would move Valley East to a volunteer service level. The former composite area would now have their costs and assessments combined with the rest of the volunteer service areas. It should be noted that this option includes additional costs of approximately \$530,000 due to call volumes serviced by volunteers. The area rating of these changes is as follows:
 - Volunteer - Increase from \$159.89 to \$167.56 (\$7.67 per year)
 - Composite to Volunteer - Decrease from \$261.38 to \$167.56 (\$93.44 per year)
 - Career - Increase from \$375.59 to \$399.84 (\$24.25 per year)

Option 3: Realign Existing Full-time Stations

Summary:

Option three is a service level change that entails the closure of a career station, resulting in the reassignment of two career firefighters per shift (8 in total) to Val Therese. The remaining eight firefighters would be reassigned within District 1 (1-2 per platoon) to in-service emergency vehicles to comply with the Collective Bargaining Agreement. The closure of a career station would have system wide consequences, therefore a station location study should be concluded before this contemplated reduction is implemented.

Risks

- Increased response times (fires, rescues, accidents, and medical tiered responses) for Fire Services cause calls to go longer without on-scene staffing. Closure of a full-time station within a district that services 75% of all annual calls will result in a delayed response into the area where the station closure occurs.
- Due to the interdependency of stations, a reduction in the number of on duty firefighters means staffing resources will be required from other stations, including Val Therese, or through the use of overtime.
- Delayed arrival of sufficient fireground staffing to carry out essential operational tasks.

- Reduced level of fire protection resulting in an increased risk by eliminating a career station in the city core which has a large population, significant number of high-risk properties, and high call volumes.

Costs

- Relocation Costs - It is anticipated that the remaining three halls would need to be relocated. The cost and time to do so have not yet been calculated but would be substantive.

Area Rating

- The reallocation of full-time firefighters from the career area to Val Therese would move this area from composite to a career service level supported by existing volunteers. The fire area rates would be modified as follows:
 - Volunteer - \$159.89 (no change)
 - Composite to Career – Increase from \$261.38 to \$356.46 (\$95.08 per year)
 - Career – Decrease from \$375.59 to \$356.46 (\$19.13 per year)

CONCLUSION

The options outlined in this report will not result in the reduction of volunteer firefighters or the closure of a volunteer station in Valley East. The arbitration award is specific to the Val Therese Station and does not result in the introduction of full-time staffing in areas of the City currently operated by volunteer firefighters.

The three options presented in this report change the Fire Services' response capability, which can affect community risk. As well, these options influence the corporation's Property Tax Policy and taxes payable by property owners. The three options all introduce new risk, however, option one presents the least amount of risk.

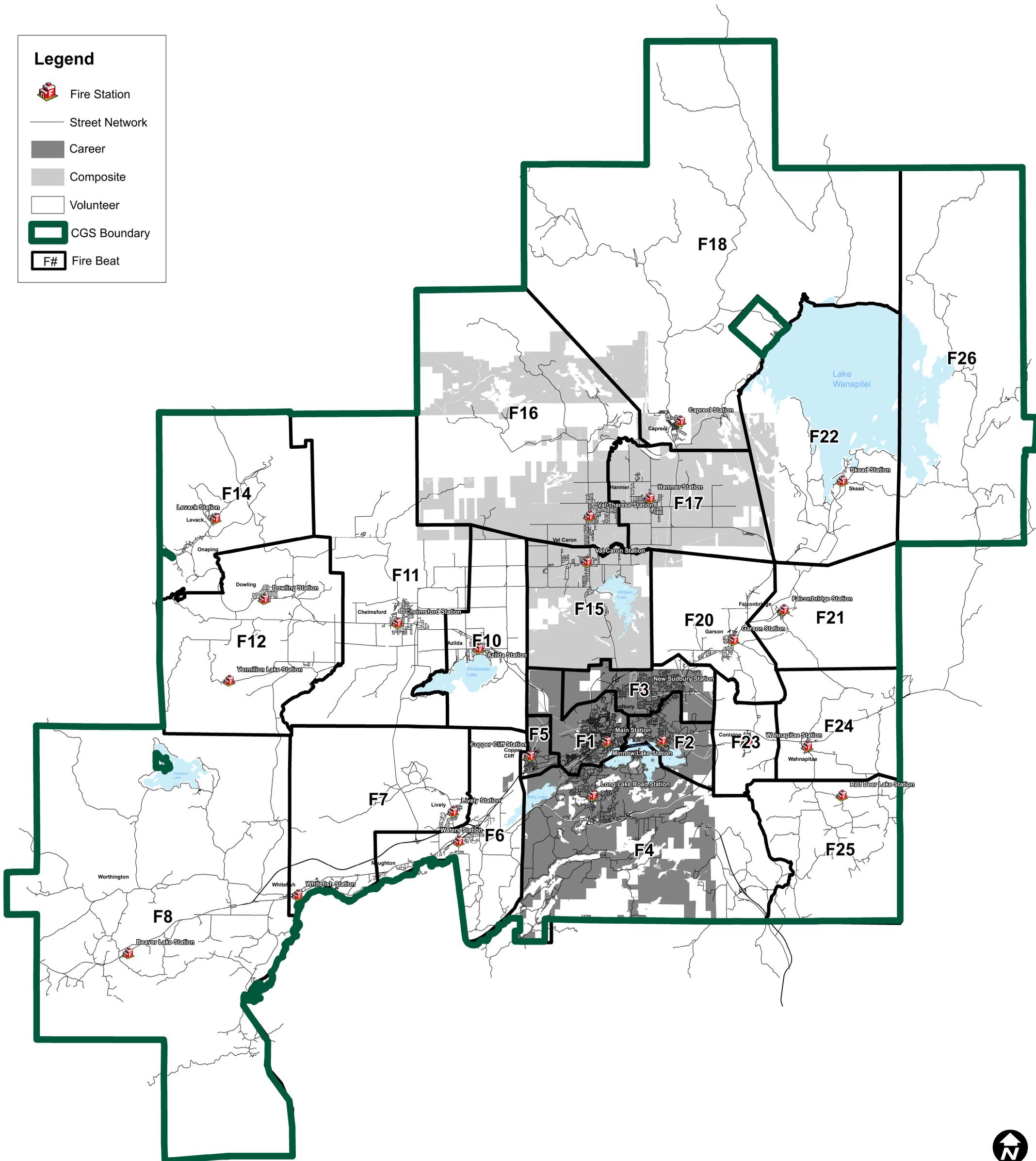
City of Greater Sudbury

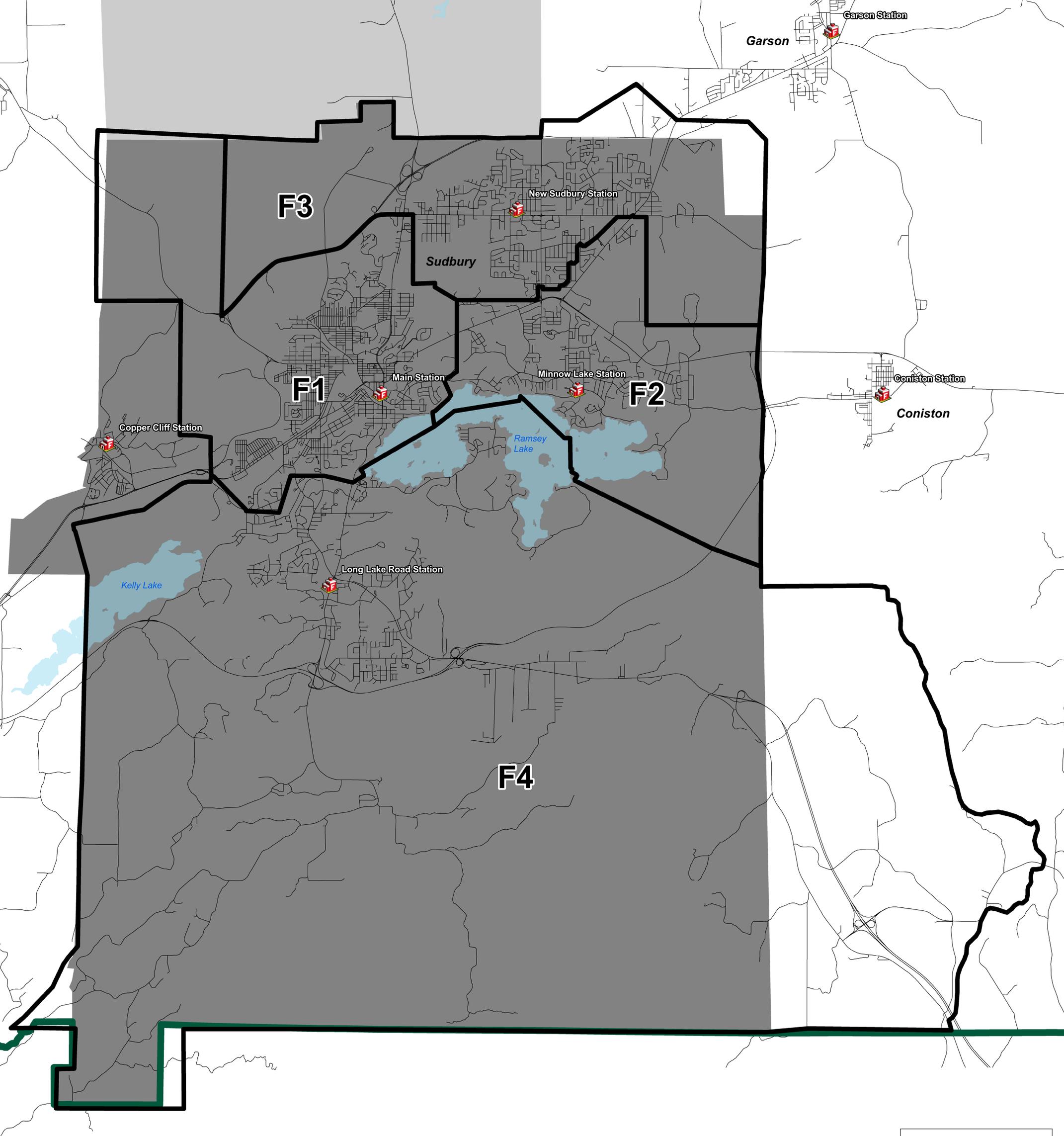
Fire Beats with Area Rating (Fire Service Levels)



Legend

-  Fire Station
-  Street Network
-  Career
-  Composite
-  Volunteer
-  CGS Boundary
-  Fire Beat

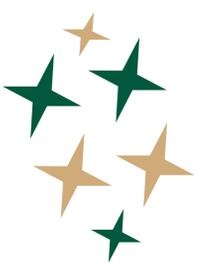




City of Greater Sudbury

Fire District 1

Area Rating (Fire Service Levels)



Legend

-  Fire Station
-  Street Network
-  Career
-  Composite
-  Volunteer
-  CGS Boundary
-  F# Fire Beat



Date: October 28, 2020
Prepared by: GIS Operations

0 0.75 1.5 3 Kilometers

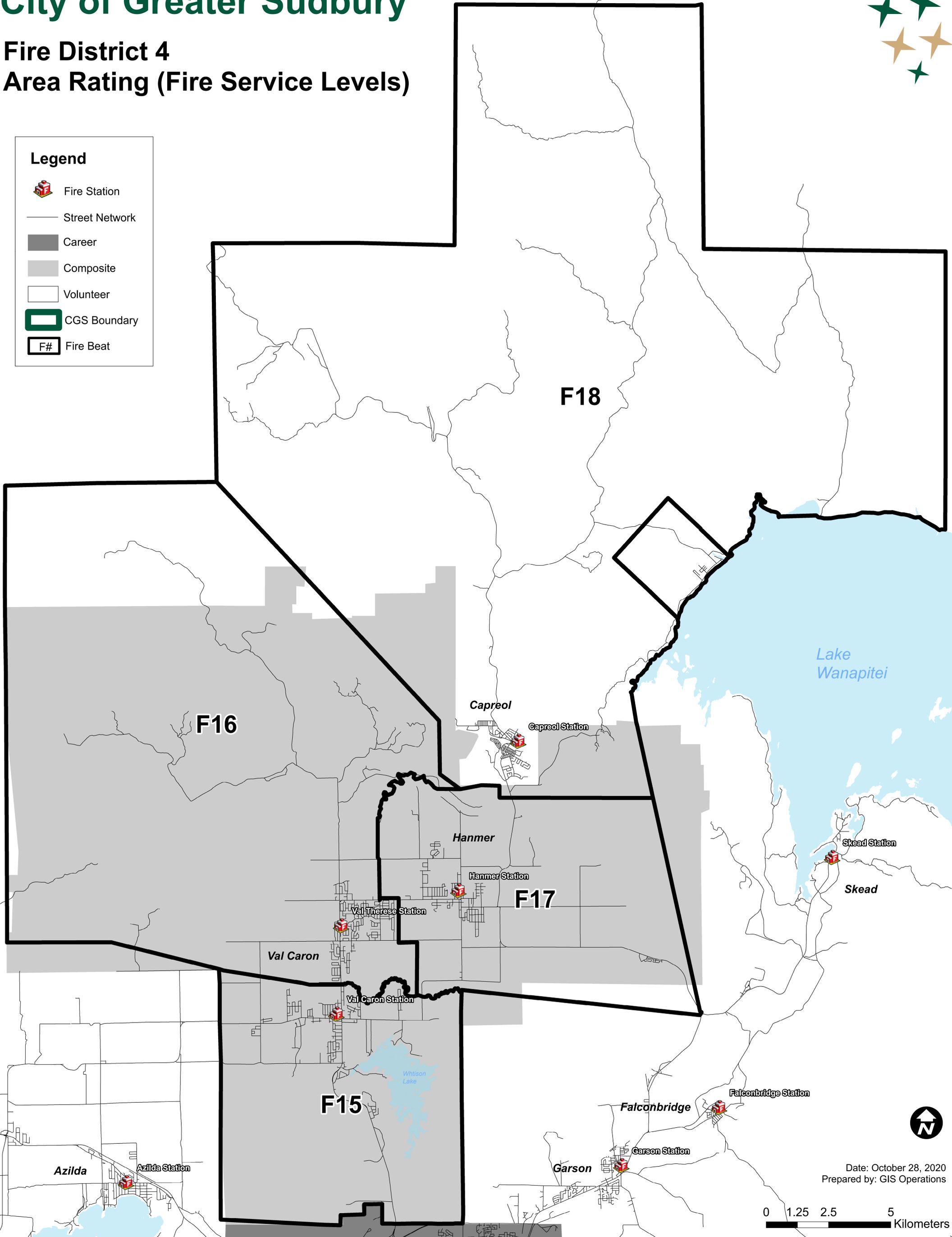
City of Greater Sudbury

Fire District 4 Area Rating (Fire Service Levels)



Legend

-  Fire Station
-  Street Network
-  Career
-  Composite
-  Volunteer
-  CGS Boundary
-  Fire Beat



Date: October 28, 2020
Prepared by: GIS Operations

0 1.25 2.5 5 Kilometers

Appendix B - Fire Protection Service Level Adjustment Report

Risk Analysis

District 1 (city core) has 53% of the total municipal population (85,714) and 30,550 properties that are protected by the Fire Service. These properties have an MPAC assessed property value of \$11.6 billion. Of the total properties, 883 in District 1 are classified as “High-Risk”. In 2019, Fire Services responded to 3,415 calls in District 1, which accounts for 75% of the total call volume in the municipality. In responding to these calls, the following apparatus attended: Engine 1 (Van Horne) 60%, Ladder 1 (Van Horne) 25%, Engine 4 (Long Lake) 29%, Engine 3 (New Sudbury) 24%, and Engine 2 (Minnow Lake) 20%.

District 1 consists of four Fire Beats, each of which is serviced by a career station:

Fire Beat	Population	MPAC Assessed Property Value	High Risk Properties	Incidents
Fire Beat 1 (Main Station)	28,284	\$ 2.93 Billion	434	1,814
Fire Beat 2 (Minnow Lake Station)	11,744	\$ 1.43 Billion	63	397
Fire Beat 3 (New Sudbury Station)	23,761	\$ 3.15 Billion	229	552
Fire Beat 4 (Long Lake Station)	21,925	\$ 4.05 Billion	157	652
District 1 Totals	85,714	\$ 11.6 Billion	883	3,415

District 4 - Valley East (Capreol excluded) has 17% of the total municipal population (27,713) and 11,437 properties which are protected by the Fire Service. These properties have an MPAC assessed value of \$2.8 billion. The population and the assessed property values are both the second highest of the five Fire Districts within the municipality. In 2019, Fire Services responded to 426 calls in Valley East, which accounts for approximately 10% of the total call volume in the municipality.

**All information is based on the 2016 Census, 2020 MPAC data.*

Appendix C - Fire Protection Service Level Adjustment Report

Volunteer Service Analysis – Valley East (Stations 15, 16 & 17)

In 2019, of the 426 unique calls in Valley East (Fire Beats 15, 16 & 17), volunteers responded to 138 or 32% of the calls and arrived on scene at various times after the first arriving truck. Multiple stations may respond to these calls (e.g., in the case of a fire, all three stations may respond). For further context, in 2019 there were 43 responses from Val Caron volunteers (10% of the total), 119 from Val Therese volunteers (28% of the total) and 69 from Hanmer volunteers (16% of the total). The Val Therese career truck responded to 417 incidents of the 426 unique calls during the same period across Fire Beats 15, 16 & 17. The career truck was unavailable for the remaining nine incidents.

Valley East Calls for Stations 15, 16 & 17 - 2019		
Incident Type	Number of Incidents	Percentage of Valley Incidents
Fires	52	12%
Open Air Fires	38	9%
Alarms	102	24%
Leaks	8	2%
Hazards	21	5%
Motor Vehicle Collisions	99	23%
Rescues	3	1%
Medical	64	15%
Assistance	39	9%
Total	426	100%

The full-time apparatus from Val Therese (Station 16) arrives on scene first 94% of the time with an average response time of 7:36 in Valley East, 5:10 time within Val Therese, with an average 2.4 firefighters. In Valley East, volunteers from Stations 15, 16 & 17 arrive on scene first 6% of the time with an average response time of 10:50. Due to data limitations we are unable to determine initial unit firefighters for the first responding volunteer truck.

Over the past three years, the average attrition rate for all volunteer stations is 15.8% per year, representing a loss of 42 volunteer firefighters annually. In the same period, Fire Services ran five recruitments and hired 101 volunteer firefighters. Currently in Valley East, we have 32 active volunteers (not including long term absences) from Val Caron (9), Val Therese (9) Hanmer (14). Attrition rates in Valley East average 18.6% per year over the past three years. Over the same period, 25 firefighters resigned, and 29 firefighters were hired. This constant cycle of hiring is difficult to manage in terms of training, recruitment, and associated costs. This impacts attendance rates for emergency calls, response times and fireground staffing.

The median Volunteer attendance at incidents in 2019 was 38% for Val Caron, 33% for Val Therese, and 39% for Hanmer. Attendance rates may not be sustainable as call volumes to these stations increase. It is common for several volunteers included in the above attendance numbers to arrive at the scene in personal vehicles after the assigned fire apparatus. Although volunteer availability fluctuates throughout a 24-hour period, Fire Services currently does not have the capability to track volunteer firefighter availability or scene response by hour of the day.

Appendix C - Fire Protection Service Level Adjustment Report

Recruitment and retention of volunteer firefighters remains a challenge for all Fire Services across North America. Fire chiefs are struggling to attract new volunteers due to the considerable time commitment, new training requirements, minimum standards for volunteer firefighters, and increased call volumes.

Insights publication states:

“In volunteer/combo departments, retention of members is a critical concern. Across the country, fire chiefs are sounding alarms to their communities about their recruitment and retention problems. Another challenge for volunteer fire departments is that firefighters do not have the time to keep up with rigid training requirements while balancing the commitments of a full-time job and family life. In North Carolina, for example, the number of volunteer firefighters has declined by 22 percent in the past two years, according to FEMA – and many other states face similar shortages.”

<https://insights.samsung.com/2019/06/17/four-critical-issues-facing-fire-services-today/>

Appendix D – Fire Protection Service Level Adjustment Report

Option 1: Reassign Existing Full-time Firefighters from Aerial

Public Risk & Operational Challenges	Incremental Financial Impact
<p>Longer response times without intervention can result in increased risk for the public</p> <ul style="list-style-type: none"> • With only two responders this truck would be designated “to not respond” as a first due apparatus on certain call types, which currently occurs an average of 88 times per year, delaying response. • New OPs and training would have to occur restricting the capability of the apparatus on initial response and which calls the aerial would be able to respond as a single unit i.e., Medical Tiered Response. <p>Due to the minimum required staffing of 22 does not reduce firefighter overtime</p> <ul style="list-style-type: none"> • The location of the firefighters has no impact on minimum fire staffing of 22. <p>Impact on fire ground staffing (minimum 16 firefighters for residential fires and 44 firefighters for high-risk fires)</p> <ul style="list-style-type: none"> • Lowering the capability of aerial in the city core where 75% or more of the fire incidents occur to which the aerial staffing of four is required. • Staffing reduction on aerial by two firefighters will impact fire ground staffing in the city core where the highest number (833) of high-risk occupancies exist, including the majority of high rise (6+ stories), institutional and vulnerable occupancies. • Frequently the aerial staff are required to achieve minimum fire ground staffing of 16 responders for a residential fire. • A reduction in aerial staffing would result in the dependence of the Val Therese career truck to respond into the city core to meet the minimum fire ground staffing. This would leave Valley East without a career response during these periods. <p>Impact on fire resources – aerial staffing pickup tanker (Long Lake) when called to areas in the city core</p> <ul style="list-style-type: none"> • Fire Services maintains a single tanker response in the city core with water supply challenges such as areas without hydrants or low municipal water flow. Two firefighters from the aerial respond with the tanker to calls while the remaining two respond with the aerial. This ensures the safe and proper operation of both apparatuses. <p>Although the aerial is not typically a first responding apparatus it is the first unit on scene an average of 88 times per year</p> <ul style="list-style-type: none"> • The aerial is not typically a first responding apparatus, however, it is the first responding vehicle 88 times per year (from 2017 to 2019), and the only vehicle on scene an average of 30 times per year for the same period. • Aerial apparatus can and does arrive first on scene when supporting other stations and response areas within the municipality. <p>Reduced capability of a two-person aerial apparatus (slows deployment and setup of the apparatus)</p> <ul style="list-style-type: none"> • With only two responders this truck would take longer to properly deploy the apparatus to commence elevated operations during fire calls and other types of emergencies. <p>Reduced emergency response to all occupancy types</p> <ul style="list-style-type: none"> • To address this would require revising the deployment recommends ensuring the aerial would not be a first arriving apparatus, potentially resulting in the need to hold back an emergency response. 	<ul style="list-style-type: none"> • No cost

Appendix D – Fire Protection Service Level Adjustment Report

<p>Increased response times (medical tiered response, fires and accidents go longer without mitigation)</p> <ul style="list-style-type: none">• New OPs and training would be required, restricting the calls the aerial would be able to respond as a single response unit (i.e., Medical Tiered Response). <p>FUS reduces fire protection rating resulting in potential insurance rate increase for property owners</p> <ul style="list-style-type: none">• Closure of a full-time station within a district that services 75% of all calls would result in a delayed response to the area where the station closure occurred.	
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Appendix D – Fire Protection Service Level Adjustment Report

Option 2: Change Val Therese Station to Volunteer Only

Public Risk & Operational Challenges	Incremental Financial Impact																								
<p>Longer response times without intervention can result in increased risk for the public</p> <ul style="list-style-type: none"> Increased response time of a minimum of five minutes in leaving the station for volunteer first responding units in Valley East. Increasing guaranteed response time to Val Caron, Val Therese, Hanmer and occasionally Capreol from career firefighters in New Sudbury (Leon Station). Without a 24/7 staffed fire station there will be a delay in response times allowing incidents to progress without intervention. Delayed response due to the variability of volunteer attendance including potential for no response. <p>Guaranteed response (career) for the Valley is coming from Station 3 (New Sudbury)</p> <ul style="list-style-type: none"> Station 3 (New Sudbury) is 17.4 km away from Station 16 (Val Therese) and 32 km away from Station 18 (Capreol). Station 3 drive times (on average): 12 minutes to Val Caron, 15 minutes to Val Therese, 18 minutes to Hanmer and 22 minutes to Capreol. <p>Due to the minimum required staffing of 22 does not reduce firefighter overtime</p> <ul style="list-style-type: none"> Moving eight Val Therese firefighters to the city core does not reduce overtime as the CBA's requirement for a minimum staffing of 22 firefighters does not change as per Article 8:02 of the SPFFA Collective Bargaining Agreement. <p>Impact on fire ground staffing (minimum 16 firefighters for residential fires and 44 firefighters for high-risk fires)</p> <ul style="list-style-type: none"> Volunteer attrition rates average 18.6% per year over the past three years in Valley East. This impacts attendance rates for emergency calls, impacting response times and fireground staffing. The ability to provide interior fire attack with trained responders would be a challenge due to training attendance. Val Caron, Val Therese and Hanmer median training attendance is 42%. The ability to provide an effective fire attack would be delayed until adequate fire responders could arrive. <p>Increased volunteer call volumes in Valley East</p> <ul style="list-style-type: none"> Without a guaranteed career response in the Valley all three stations would be required to be called out for all calls. High call volumes are not sustainable for volunteer firefighters and could require further reductions in service levels to bring the volume down. Val Therese volunteers would see a significant increase in the number of calls unless service levels are altered. Valley East Call volumes at current (2019) levels would require, on average, an increase in volunteer responses by 453% (with MTR) or 370% (no MTR). 	<p>\$448,967 - Volunteer Costs without Medical Tiered Response (based on 2019 Fire data)</p> <ul style="list-style-type: none"> Call volume based on district wide paging to get adequate volunteer staffing. Increased call volume by 370% excluding 62 medical tiered calls. <p>\$531,426 - Volunteer Costs with Medical Tiered Response (based on 2019 Fire data)</p> <ul style="list-style-type: none"> Call volume based on district wide paging to get adequate volunteer staffing. Increased call volume by 453% including 64 medical tiered calls. Average staffing cost of a station call-out (\$542.33). The introduction of medical tiered response would be \$82,459 in year one which includes volunteer response costs of \$34,709 and initial training costs (32 staff) of \$47,750. Subsequent years would cost approximately \$47,125 which includes volunteer response, on-going training, and new staff training costs. <p>\$55,000 - Additional Support Unit for Redeployed Staff</p> <ul style="list-style-type: none"> As per the CBA article 8:02 Staffing "The parties agree that the Employer shall maintain a minimum of twenty-two full-time firefighters...shall be assigned to in-service emergency vehicles or be in training at all times." 																								
<table border="1"> <thead> <tr> <th>Station</th> <th>Calls (2019)</th> <th>Attendance Rate (2019)</th> <th>Projected Increase in Calls (based on 2019)</th> <th>Total Percentage Increase (with MTR)</th> <th>Total Percentage Increase (without MTR)</th> </tr> </thead> <tbody> <tr> <td>15</td> <td>43</td> <td>38%</td> <td>426</td> <td>890%</td> <td>742%</td> </tr> <tr> <td>16</td> <td>119</td> <td>33%</td> <td>426</td> <td>258%</td> <td>204%</td> </tr> <tr> <td>17</td> <td>69</td> <td>39%</td> <td>426</td> <td>517%</td> <td>370%</td> </tr> </tbody> </table>	Station	Calls (2019)	Attendance Rate (2019)	Projected Increase in Calls (based on 2019)	Total Percentage Increase (with MTR)	Total Percentage Increase (without MTR)	15	43	38%	426	890%	742%	16	119	33%	426	258%	204%	17	69	39%	426	517%	370%	
Station	Calls (2019)	Attendance Rate (2019)	Projected Increase in Calls (based on 2019)	Total Percentage Increase (with MTR)	Total Percentage Increase (without MTR)																				
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17	69	39%	426	517%	370%																				

Appendix D – Fire Protection Service Level Adjustment Report

<p>Surplus staff must be assigned to an emergency response vehicle (CBA)</p> <ul style="list-style-type: none">• CBA requirement for a minimum staffing of 22 firefighters per platoon does not change. The location of the firefighters has no impact on minimum fire staffing. 8:02 Staffing: The parties agree that the Employer shall maintain a minimum of twenty-two (22) full-time firefighters on each of the four platoons at all times. On duty suppression personnel shall only be assigned to in-service emergency vehicles or be in training (within the confines of the geographical response area and available to respond) at all times. <p>Volunteer firefighter burnout (increasing attrition rate) due to the higher call volumes which may not be sustainable</p> <ul style="list-style-type: none">• High call volume has the potential to burn out volunteers, resulting in diminishing response, training, and higher attrition rates (average length of service for a volunteer is five years). <p>Insufficient number of available volunteer firefighter applicants (recruitment)</p> <ul style="list-style-type: none">• In volunteer/combination departments, the retention of members is a critical concern. Across the country, fire chiefs are sounding alarms to their communities about their recruitment and retention problems. Another challenge for volunteer fire departments is that firefighters do not have the time to keep up with rigid training requirements while balancing the commitments of a full-time job and family life. In North Carolina, for example, the number of volunteer firefighters has declined by 22% in the past two years, according to FEMA – and many other states face similar shortages. <p>https://insights.samsung.com/2019/06/17/four-critical-issues-facing-fire-services-today/</p> <p>Reduced emergency response to all occupancy types</p> <ul style="list-style-type: none">• Multiple vulnerable occupancies in the coverage area will experience a delay in response to both fire and medical tiered incidents (a vulnerable occupancy is a building or organization that is either a care and treatment occupancy, a care occupancy, or a retirement home). <p>Loss of technical rescue stations</p> <ul style="list-style-type: none">• The existing space within stations is unable to support the additional delivery of technical rescue.• Decreased capability and increased response time of technical rescue. <p>Insufficient number of available volunteer firefighters for incident response</p> <ul style="list-style-type: none">• The number of volunteer firefighter responders is unknown as they maintain a discretionary response. <p>Service level reduction in Valley East and Capreol</p> <ul style="list-style-type: none">• Service level reduction for the 27,713 residents in Fire District 4 (Val Caron, Val Therese, Hanmer, and Capreol). <p>Loss of Medical Tiered Response</p> <ul style="list-style-type: none">• Council would need to determine if medical tiered response would be maintained.• There may be a number of volunteers who do not wish to train on or respond to medical calls, as we have recently experienced in Fire District 3.• If we were able to find a suitable number of volunteers it would take several months to re-establish MTR due to training requirements.	<ul style="list-style-type: none">• Costs related to renovations of stations in order to accommodate additional displaced equipment.
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Appendix D – Fire Protection Service Level Adjustment Report

<p>Increased response times (medical tiered response, fires and accidents go longer without mitigation)</p> <ul style="list-style-type: none">• Increasing the response time an additional five minutes or more, which is the average time it takes volunteers to report to the station or to arrive on scene for first responding units in the Valley (number of first responders remains unknown).• Increasing guaranteed response time to Val Caron, Val Therese, and Hanmer from career firefighters (New Sudbury Station).• Delayed response due to the variability of volunteer response, including potential for no response within the incident fire beat.• Loss of effective Medical Tiered Response, although volunteers (32 X 44 hours training = \$35,200 not including instructor time) can be trained, they will have a slower response time or may not respond. In the case of sudden cardiac arrest, for every minute that passes without CPR and defibrillation the chances of survival decrease by 7-10%. <p>FUS reduces fire protection rating resulting in potential insurance rate increase for property owners</p> <ul style="list-style-type: none">• Potential for a Fire Underwriters Survey re-evaluation of fire coverage area to lower protection rating due to loss of career firefighters. An updated audit of Greater Sudbury is due to occur in 2021 which may impact residential and/or commercial rates.	
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Appendix D – Fire Protection Service Level Adjustment Report

Option 3: Realign Existing Full-time Stations

Public Risk & Operational Challenges	Incremental Financial Impact
<p>Longer response times without intervention can result in increased risk for the public</p> <ul style="list-style-type: none"> • Closure of a full-time station where 75% of the City's calls occur, would result in a delayed response from the remaining stations depending on what area of the City the call occurred. • Closure of a full-time station would result in having to use the career truck in the Valley as a primary response during major incidents in the city core. <p>Due to the minimum required staffing of 22, it does not reduce the number of firefighters</p> <ul style="list-style-type: none"> • The location of the firefighters has no impact on minimum fire staffing of 22. <p>Impact on fire ground staffing (minimum 16 firefighters for residential fires and 44 firefighters for high-risk fires)</p> <ul style="list-style-type: none"> • With the closure of a career station, the remaining three stations would be required to respond to all fire calls to get the required 16 responders, leaving the City without fire protection. • In the event of a fire, the career truck from the Valley would be required to come into the city core to provide emergency coverage leaving the Valley without a career response. <p>Surplus staff must be assigned to an emergency response vehicle (CBA)</p> <ul style="list-style-type: none"> • Collective Bargaining Agreement requirement for a minimum staffing of 22 firefighters per platoon does not change. The location of the firefighters has no impact on minimum fire staffing. Article 8:02 - Staffing: The parties agree that the Employer shall maintain a minimum of twenty-two (22) full-time firefighters on each of the four platoons at all times. On duty suppression personnel shall only be assigned to in-service emergency vehicles or be in training (within the confines of the geographical response area and available to respond) at all times. <p>Reduced emergency response to all occupancy types</p> <ul style="list-style-type: none"> • Multiple vulnerable occupancies in the coverage area will experience a delay in response to both fire and medical tiered incidents (a vulnerable occupancy is a building or organization that is either a care and treatment occupancy, a care occupancy, or a retirement home). <p>Loss of technical rescue stations</p> <ul style="list-style-type: none"> • The existing space within stations is unable to support the additional delivery of technical rescue. • Decreased capability and increased response time of technical rescue. <p>Service level reduction in the city core</p> <ul style="list-style-type: none"> • Service level reduction that will result in increased response times in an area of the City where a career station will be closed. • Would require a potential relocation of Paramedic Services. • The lack of available space within existing stations will create additional challenges to deliver technical rescue. <p>Increased response times (medical tiered response, fires and accidents go longer without mitigation)</p> <ul style="list-style-type: none"> • Closure of a full-time station within a district that services 75% of all calls would result in a delay into the area where the station closure occurred. 	<p>Relocation Costs</p> <ul style="list-style-type: none"> • It is anticipated that the remaining three halls would need to be relocated and the cost and time to do so would be substantive.

Appendix D – Fire Protection Service Level Adjustment Report

FUS reduces fire protection rating resulting in potential insurance rate increase for property owner

- Potential for a Fire Underwriters Survey re-evaluation of fire coverage area to lower protection rating due to loss of career firefighters. An updated audit of Greater Sudbury is due to occur in 2021 which may impact residential and/or commercial rates.